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part of the weatherdeck if a break in a cargo piping system or hose causes spraying or leaking.

(d) Each emergency shutdown station must contain a single remote actuator for all quick closing shutoff valves required by this part.

(e) Each emergency shutdown station must have the controls necessary to stop all cargo pumps on the tankship.

- (f) Any remote emergency actuator, such as that for a quick closing shutoff valve, a cargo pump, or a water spray system, must be of a type that will not defeat the operation of other remote emergency actuators. The emergency action must occur whether one or several actuators are operated.
- (g) Each emergency shutdown station must be marked as described in §153.955 (c), (d), and (e) with the legend "EMER-GENCY SHUTDOWN STATION" so that the legend is visible from work areas in the part of the deck where the cargo containment systems are located.

[CGD 73-96, 42 FR 49027, Sept. 26, 1977, as amended by CGD 78-128, 47 FR 21208, May 17, 1982]

## §153.297 Emergency actuators at the point of cargo control.

(a) The point from which cargo transfer is controlled must have the same actuators an emergency shutdown station must have under §153.296 and an actuator for any deck water spray systems required by this part.

(b) The point from which cargo transfer is controlled may be one of the emergency shutdown stations required under §153.296 if it meets the requirements of that section.

CARGO HANDLING SPACE VENTILATION

### $\S 153.310$ Ventilation system type.

A cargo handling space must have a permanent forced ventilation system of the exhaust type.

#### §153.312 Ventilation system standards.

A cargo handling space ventilation system must meet the following:

(a) A ventilation system exhaust duct must discharge no less than 10 m (approx. 32.8 ft) from openings into or ventilation intakes for, accommodation or service spaces.

- (b) A ventilation system must not recycle vapors from ventilation discharges.
- (c) Except for the space served by the ventilation duct, a ventilation duct must not pass through a machinery room, an accommodation space, or working spaces.
- (d) A ventilation system must be operable from outside the space it ventilates.
- (e) A ventilation system must be sized to change the air in the ventilated space at least 30 times per hour.
- (f) A ventilation system must not allow air to stagnate in any part of a ventilated space.
- (g) A ventilation system must be able to exhaust air from both above and below the deck plates of a ventilated space.

## §153.314 Ventilation of spaces not usually occupied.

- (a) Each tankship must have portable ventilation equipment that fits the mount required in paragraph (b)(1) of this section.
- (b) Each enclosed space within the cargo area that does not have a permanent ventilation system meeting §153.312 must have:
- (1) A mount for the portable mechanical ventilation equipment required by this section; and
- (2) Either permanent ventilation ductwork connected to the mount and arranged to supply air to the extremities of the space; or
- (3) An attachment for temporary ductwork at the mount with enough ductway in the ventilated space and temporary ductwork stowed aboard the vessel to supply air to the extremities of the space.

[CGD 73-96, 42 FR 49027, Sept. 26, 1977, as amended by CGD 78-128, 47 FR 21208, May 17, 1982]

## § 153.316 Special cargo pumproom ventilation rate.

When Table 1 refers to this section, the cargo pumproom ventilation system must change the air in the cargo pumproom 45 times per hour and discharge no less than 4 m (approx. 13.1 ft) above the deck.

#### CARGO PUMPROOMS

#### §153.330 Access.

- (a) The access door to a cargo pumproom must open on the weatheredeck.
- (b) The access way to a cargo pumproom and its valving must allow passage of a man wearing the breathing apparatus required by §153.214(b)(1).
- (c) Each ladderway in a cargo pumproom must be free from obstructions by piping, framework, or other equipment.
- (d) Cargo pumproom ladders and platforms must have guard railings.
- (e) Each ladder to a cargo pump-room must have an incline from the horizontal of less than  $60^{\circ}$ .

#### §153.332 Hoisting arrangement.

- (a) A cargo pumproom located below the weatherdeck must have a permanent hoisting arrangement with a lifting capacity of 2500 N (approx. 562 lbs), operable from the weatherdeck, for the removal of an unconscious person.
- (b) The cargo pumproom must have a 60 cm by 60 cm (approx. 2 ft by 2 ft) cross-sectional clearance through the hoistway.

# §153.333 Cargo pump discharge pressure gauge.

Each cargo pump within a pumproom must have a discharge pressure gauge outside the pumproom.

#### §153.334 Bilge pumping systems.

- (a) A cargo pumproom must have a bilge pumping system.
- (b) The bilge pumping system must have:
- (1) Complete remote operating controls outside the cargo pumproom; and
- (2) An alarm that operates when the depth of liquid in the bilges exceeds 50 cm (approx. 19.7 in.).

## §153.336 Special cargo pump or pumproom requirements.

- (a) When Table 1 refers to this section:
- (1) The cargo pump must be an intank cargo pump;
- (2) The cargo pumproom must be on or above the weatherdeck; or
- (3) The cargo pumproom must have the specific approval of the Commandant (G-MSO).

- (b) For a cargo pumproom described in paragraph (a)(2) or (a)(3) the tankship must:
- (1) Have a low pressure breathing quality air supply system for use with the breathing apparatus in the pumproom; or
- (2) Meet any requirements specified by the Commandant (G-MSO).
- (c) A low pressure air supply system described in paragraph (b)(1) of this section must:
- (1) Run from fixed air bottles to the pumproom;
- (2) Have an air compressor to recharge the fixed air bottles;
- (3) have hose connections in the pumproom suitable for use with the breathing apparatus required in §153.214(b)(1); and
- (4) have the air capacity to enable two men to work in the pumproom for at least one hour each without using the cartridges for the breathing apparatus required in §153.214(b)(1).

[CGD 78-128, 47 FR 21208, May 17, 1982, as amended by CGD 82-063b, 48 FR 4781, Feb. 3, 1983]

#### CARGO VENTING SYSTEMS

## §153.350 Location of B/3 vent discharges.

Except as prescribed in §153.353, a

B/3 venting system must discharge:

- (a) At the highest of the following points:
- (1) 6m (approx. 19.7 ft) above the weatherdeck.
  - (2) B/3 above the weatherdeck.
- (3) 6m (approx. 19.7 ft) above a walkway, if the walkway is within a 6m (approx. 19.7 ft) horizontal radius from the vent discharge.
- (b) At least 15m (approx. 49.2 ft) from air intakes for, or openings into, accommodation and service spaces.

[CGD 78–128, 47 FR 21208, May 17, 1982; 47 FR 27293, June 24, 1982]

## §153.351 Location of 4m vent discharges.

Except as prescribed in §153.353, a 4m venting system must discharge:

- (a) At least 4m (approx. 13.1 ft) above the higher of:
  - (1) the weatherdeck; or